## **LOCATION**

## WATERSHED GEOGRAPHY

The Fabius River basin is easily divided into three main sub-basins (Figure wm). The North Fabius sub-basin originates in Davis County, Iowa. The Middle Fabius and South Fabius sub-basins originate in Schuyler County, Missouri. Approximately 6% of the watershed is in Iowa. The three principal streams flow in parallel relation southeasterly across northeastern Missouri, draining portions of eight counties (Schuyler, Scotland, Clark, Adair, Knox, Lewis, Shelby, and Marion). The Middle Fabius River joins the North Fabius in southeastern Lewis County. The North Fabius flows another 8.9 miles before merging with the South Fabius in northeastern Marion County to form the Fabius River. The Fabius River then flows only 3.5 miles before reaching its confluence with the Mississippi River in the Fabius Chute near River Mile 323. All three mainstem streams have upper tributaries named North Fork and South Fork. Bear Creek is the only other major tributary of the North Fabius River (besides the Middle Fabius River). Durgens Creek, once a North Fabius tributary, has been diverted and now drains directly into the Mississippi River. Bridge Creek is a major tributary of the Middle Fabius River, and the Little Fabius River and Troublesome Creek are major tributaries of the South Fabius River. The Fabius watershed is bounded by the Salt River basin to the west, the Wyaconda River basin to the northeast, and the North River basin to the south.

## **Watershed Area**

The Fabius watershed drains 1,543 square miles (988,900 acres) of land. The basin is about 80 miles long and up to 25 miles wide. The North Fabius, Middle Fabius, and South Fabius sub-basins compose 32%, 27%, and 40% of the Fabius basin, respectively (SCS 1992a, SCS unpublished). The only other fifth-order streams in the basin are the South Fork of the South Fabius River and the South Fork of the Middle Fabius River which drain about 53.5 square miles (34,311 acres) and 94.0 square miles (60,323 acres), respectively.

## **Stream Orders**

Streams were identified on USGS 7.5-minute topographic maps and ordered according to Strahler (1957). There are 57 third-order and larger streams in the basin (<u>Appendix A</u>). The North Fabius River is the longest (105 miles) and largest (sixth order). The Middle Fabius River (75 miles long) and South Fabius River (81 miles long) are fifth-order streams, as are their respective South Forks. All other streams in the basin are fourth-order or smaller.

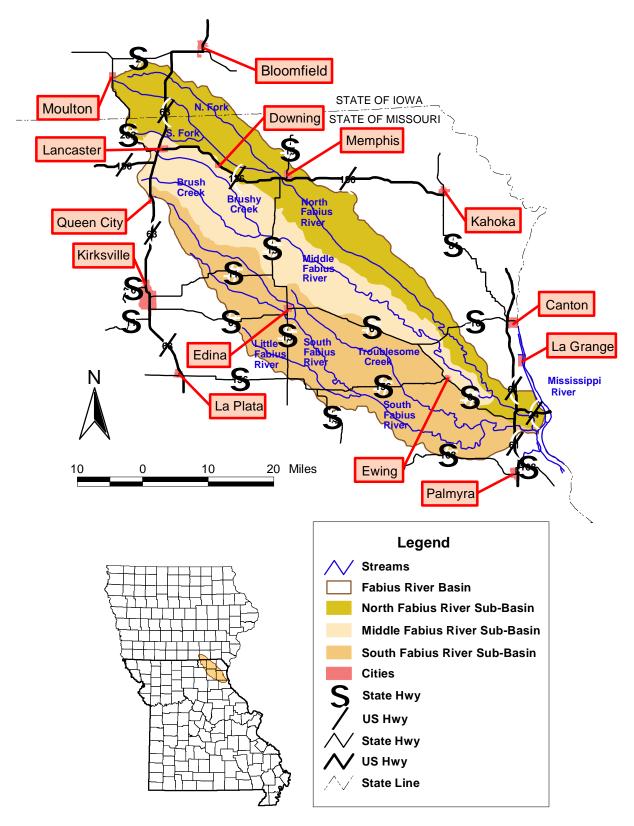


Figure wm. Location of Fabius River watershed.

Appendix A. Third-order and larger streams in the Fabius River basin. S T R indicates section, township, and range at the mouth. An asterisk (\*) indicates a stream length too short to measure gradient.

STREAM NAME	LOCATION S T R	TOTAL LENGTH (MILES)	PERCENT CHANNELIZED	STREAM ORDER AT MOUTH	GRADIENT BY STREAM ORDER (FEET/MILE)			
					6	5	4	3
Fabius River	21 59n 8w	3.5	100	6	2.0			
North Fabius	24 59n 6w	104.9	59	6	2.8	3.3	6.7	10.3
Unnamed trib.	22 61n 7w	1.1	0	3				*
Unnamed trib.	8 61n 7w	1.8	0	3				*
Forsee Branch	5 62n 8w	3.6	0	3				18.2
Cooper Branch	6 62n 8w	9.9	0	3				6.6
Bear Creek	23 63n 9w	26.2	0	4			5.5	6.2
Long Branch	33 64n 10w	12.5	0	3				13.3
Indian Creek	12 64n 11w	12.4	0	3				10.0
Gunns Branch	34 65n 11w	13.2	0	3				9.7
Unamed trib.	12 65n 12w	4.7	0	3				19.5
N. Fk. N. Fabius	2 65n 12w	19.9	69	4			3.9	6.5
Unnamed trib.	3 65n 12w	3.0	0	3				11.4
S. Fk. N. Fabius	1 66n 14w	15.1	0	4			10.1	9.1

STREAM NAME	LOCATION S T R	TOTAL LENGTH (MILES)	PERCENT CHANNELIZED	STREAM ORDER AT MOUTH	GRADIENT BY STREAM ORDER (FEET/MILE)			
					6	5	4	3
Unnamed trib.	1 66n 14w	3.7	0	3				13.1
Batten Branch	15 67n 14w	3.7	0	3				22.2
Carter Creek	27 76n 13w	24.5	37	3				6.9
Unnamed trib.	33 68n 15w	3.5	0	3				15.2
Unnamed trib.	5 67n 14w	8.1	23	3				12.8
Middle Fabius	29 60n 6w	74.5	0	5		2.6		
Unnamed trib.	5 60n 7w	2.0	0	3				30.7
Unnamed trib.	30 61n 7w	5.2	0	3				23.3
Reddish Branch	31 62n 8w	11.8	0	3				15.1
Bridge Creek	6 62n 9w	30.2	0	4			6.0	5.2
L. Bridge Creek	10 62n 10w	9.7	0	3				12.3
Tobin Creek	30 64n 11w	14.5	0	3				7.0
N. Fk. Middle Fabius	27 64n 12w	35.0	0	4			6.3	6.1
Bridge Creek	36 65n 13w	16.3	0	3				8.0

STREAM NAME	LOCATION S T R	TOTAL LENGTH (MILES)	PERCENT CHANNELIZED	STREAM ORDER AT MOUTH	GRADIENT BY STREAM ORDER (FEET/MILE)			
					6	5	4	3
S. Fk. Middle Fabius	27 64n 12w	30.3	0	5		5.0	8.0	13.7
N. Bridge Creek	23 64n 13w	7.2	0	4			11.5	14.6
Bee Branch	22 64n 13w	4.2	0	3				16.2
Brushy Creek	9 64n 13w	9.4	0	4			9.3	14.1
Tipp Creek	8 65n 14w	6.1	0	3				12.5
South Fabius	24 59n 6w	81.0	10	5		2.9		
Troubleso me Creek	13 59n 7w	60.1	16	4			4.0	5.0
Grassy Creek	18 59n 6w	27.8	0	3				5.4
Brower Branch	28 59n 8w	5.4	0	3				18.8
Unnamed trib.	17 59n 8w	2.7	0	3				30.0
Unnamed trib.	2 59n 9w	7.6	19	3				4.2
Allen Branch	29 60n 8w	6.1	0	3				15.9
Hawkins Branch	17 61n 9w	10.5	18	3				6.5
Seebers Branch	32 60n 9w	8.1	0	3				8.9
Spees Branch	29 60n 9w	11.9	0	3				8.8

STREAM NAME	LOCATION S T R	TOTAL LENGTH (MILES)	PERCENT CHANNELIZED	STREAM ORDER AT	GRADIENT BY STREAM ORDER (FEET/MILE)			
				MOUTH	6	5	4	3
Cottey Creek	31 62n 10w	3.2	0	3				14.3
L. Fabius River	23 60n 10w	40.5	0	4			5.1	6.7
Unnamed trib.	26 60n 10w	4.2	0	3				23.1
Long Branch	14 60n 11w	4.8	0	3				16.1
Unnamed trib.	17 61n 12w	3.7	0	3				9.4
Unnamed trib.	36 61n 11w	2.7	0	3				7.1
Coon Creek	15 61n 11w	10.6	0	3				9.4
N. Fk. S. Fabius	29 62n 11w	42.4	0	4			4.6	7.1
S. Fk. S. Fabius	29 62n 11w	32.8	0	5		5.0	4.6	7.1
Rock Creek	30 62n 11w	11.1	0	4			10.8	7.1
Unnamed trib.	34 62n 12w	2.3	0	3				20.8
Long Branch	6 62n 12w	7.4	0	3				10.7
Nick Branch	2 62n 13w	6.2	0	3				10.8
Unnamed trib.	4 63n 13w	2.8	0	3				18.1
Tauaninny Creek	15 64n 14w	5.6	0	3				10.4